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Serial No.: 09/853,339
Filed: 5/11/2001
Inventor: Fargo, et al.
Group Art Unit: 3651
Examiner: Tran, Khoi H.
Title: Escalator Support Structure

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Alexandria, VA 22313-1450

REPLY BRIEF

Dear Sir:

Responsive to the Examiner's Answer dated August 6, 2003, please consider the following remarks. The appeal brief fee has already been paid. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

REMARKS

Appellant respectfully reiterates all of the arguments made in the Appeal Brief and in previous Office Action responses to address the Examiner's Answer. Additional arguments, prepared in response to new issues raised in the Examiner's Answer, are set forth below.

Claim 1 - 35 U.S.C. 102(e) - Gschwendtner

The examiner argues that Gschwendtner discloses an escalator machine that extends along the entire length of the escalator, as shown in the cross-section of Figure 3, which depicts a “moving plate chain 8.” Appellant disagrees.

Figure 3 shows a cross-sectional view through the moving walkway. The upper and lower crossbeams 6, 7, and the lateral wall supports 4, 5 together form the support construction for the moving walkway. The moving walkway further includes conveying plates 8 that support the passengers, guide rails 9 for the upper and lower runs of a plate conveyor chain, glass balustrades that form the sides, and hand rails 11 that circulate with the conveying plates 8. None of these components is an escalator machine.

As is well known in the art, escalator machines include a power source, such as a drive motor, that provides the driving power to move the conveying plates along their circulating path. The plates themselves cannot move unless an escalator machine powers them. Gschwendtner does not discuss any type of motor or power source and does not discuss a mounting location for the power source. As discussed in the Appeal Brief, escalator machines are traditionally located underneath one of the landings, and are not located along the rise. There is nothing in Gschwendtner to suggest or teach that the escalator machine is positioned along the rise contrary to a traditional mounting location.

While it is well settled that terms in a claim are to be given their broadest reasonable interpretation, this interpretation must be consistent with the specification, with claim language being read in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Bond 910 F. 2d 831, 833, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990). In interpreting

Gschwendtner, the examiner has improperly expanded the meaning to be given to the claim term “escalator machine.” As shown in Figure 11 and as described in the accompanying specification of the subject application, Appellant’s escalator machine clearly provides the driving power force for moving the escalator conveying plates. One of ordinary skill in the art simply would not consider the conveying plates 8 of Gschwendtner, as corresponding to Appellant’s claimed escalator machine especially since the plates themselves cannot move without being powered by an escalator machine, which is clearly a separate component from the plates. Further, Gschwendtner does not discuss any type of mounting location for the drive motor of the moving walkway, and there certainly is no suggestion in Gschwendtner that the drive motor is mounted in a non-traditional location. Because Gschwendtner does not teach a steel sheet covering an escalator machine along the rise, Gschwendtner cannot anticipate claim 1.

The examiner also argues that the language of Appellant’s claim 1 does not require the escalator machine to be located in the rise section of the escalator. Appellant disagrees. Claim 1 states, “a rise for interconnecting said bottom landing support to said top landing support wherein said rise includes at least one module wherein the module comprises a steel sheet covering an escalator machine, said steel sheet presenting a continuous planar exterior surface.” The rise includes a module and the module comprises a steel sheet that covers an escalator machine. If the escalator machine were positioned at a location other than the rise, then the steel sheet (which forms a portion of the rise) could not cover the escalator machine. Thus, the only place the escalator machine could be located, as defined by claim 1, is in the rise section. Further, Appellant’s drawings and accompanying description clearly support and define this limitation, and the claims must be interpreted in light of the specification.

Gschwendtner also does not teach a steel sheet covering an escalator machine where the steel sheet presents a continuous planar exterior surface. As argued in the Appeal Brief, the supplementary wall support of Figure 8 in Gschwendtner is clearly shown with openings 22, and thus does not disclose a steel sheet with a continuous planar exterior surface.

The examiner now argues that the continuous steel sheet is shown in Figure 1 of Gschwendtner, with the sheet covering the exterior surface of the escalator and the escalator machine. However, Figure 1 does not show the support structure for the escalator. Instead, at best, Figure 1 schematically shows the exterior cladding that is mounted over the supporting structure of Figure 2. Further, there is no teaching that the cladding is made of steel.

One of the benefits of Appellant's design is that the need for exterior cladding, like that shown in Figure 1 of Gschwendtner, is eliminated. See paragraphs [3]–[5] of the subject application. It is clear, based on Appellant's drawings and accompanying description, that one of ordinary skill in the art would not consider Appellant's claimed support structure assembly for an escalator, clearly defined in claim 1, as corresponding to the exterior cladding shown in Gschwendtner in Figure 1.

The Gschwendtner support structure for the escalator is clearly shown in Figure 2, not Figure 1. Figure 2 shows a truss structure and does not include a steel sheet that covers an escalator machine. Each of the figures clearly shows that the escalator support structure includes upper and lower crossbeams 6, 7 and lateral wall supports 4, 5. Each wall support is comprised of an upper angle profile compression truss 12, a lower angle profile tension truss 13, and the framework strut 14 (see Figure 4). Figure 8 describes an embodiment where one of the wall supports, i.e. the supplementary wall support, comprises a steel plate with openings 22 that is in

facing contact with the basic wall supports. There simply is no teaching in Gschwendtner of a solid steel sheet with a continuous planar exterior surface that is used to provide structural support for any part of the escalator.

Thus, for the reasons set for above and in the Appeal Brief, the rejection of claim 1 under 35 U.S.C. 102(e) as being anticipated by Gschwendtner is improper and must be reversed.

Claim 1 – 35 U.S.C. 102(b) - Pallinger

The examiner argues that Pallinger discloses a moving mechanism of an escalator machine that extends along the entire length of the escalator, as shown in the cross section of Figure 4, which depicts a “moving plate chain 4 and 4.1.” Appellant disagrees.

Figure 4 shows a cross-section of a moving walkway 1 with under bracing 9 arranged at a lower edge of each beam 8. Guide carriers 19 include first guides 20.1 for the passenger carrying plates 4 and second guides 20.2 for the returning plates 4.1. These plates 4, 4.1 are not an escalator machine that provides the power for moving the walkway.

As discussed above with regard to Gschwendtner, it is well known that an escalator machine is a power source, which provides the driving power to move the conveying plates along their circulating path. The plates themselves cannot move unless an escalator machine powers them. Pallinger does not discuss any type of motor or power source and does not discuss a mounting position for the power source. Further, as discussed in the Appeal Brief, escalator machines are traditionally located underneath one of the landings, and are not located along the rise. There is nothing in Pallinger to suggest or teach that the escalator machine is mounted along the rise in a non-traditional mounting location.

While it is well settled that terms in a claim are to be given their broadest reasonable interpretation, this interpretation must be consistent with the specification, with claim language being read in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Bond 910 F. 2d 831, 833, 15 USPO2d 1566, 1567 (Fed. Cir. 1990). In interpreting Pallinger, the examiner has improperly expanded the meaning to be given to the claim term “escalator machine.” As shown in Figure 11 and as described in the accompanying specification, Appellant’s escalator machine clearly provides the driving power force for moving the escalator conveying plates. One of ordinary skill in the art simply would not consider the plates 4, 4.1 of Pallinger, as corresponding to Appellant’s claimed escalator machine especially since Pallinger does not show a drive motor or the mounting location for the drive motor for moving the plates. Further, the plates 4, 4.1 cannot move without being driven by the power source of the escalator machine, which is clearly a component separate from the plates. Because Pallinger does not teach a steel sheet covering an escalator machine along the rise, Pallinger cannot anticipate claim 1.

The examiner argues that the continuous steel sheet 7 of Pallinger corresponds to Appellant’s claimed steel sheet and is shown in Figures 1-4, with the sheet 7 covering the exterior surface of the escalator and the escalator machine. Figures 1-4 show the exterior cladding 7, which is mounted above, but does not cover, the escalator support structure. Further, there is no teaching that the cladding is made of steel.

The Pallinger support structure for the escalator is shown in Figures 3-4. Figures 3-4 clearly show a traditional truss structure and not a module design including a steel sheet in place

of the truss members. Further, Pallinger does not teach the use of a steel sheet that covers an escalator machine.

One of the benefits of Appellant's design is that there is no need for exterior cladding, like that shown in Figure 1 of Pallinger. Appellant's invention provides an improved support structure that utilizes a closed design, and which eliminates the need for exterior cladding while providing additional structural strength and stiffness over a traditional truss structure. See paragraphs [3]–[5] of the subject application. Because the claims must be interpreted in light of the specification, it is clear, based on Appellant's drawings and accompanying description, that one of ordinary skill in the art would not equate Appellant's claimed support structure assembly for an escalator, as defined in claim 1, to the exterior cladding shown in Pallinger.

The examiner also argues that the language of Appellant's claim 1 does not require the supporting features of the steel sheet or the escalator machine to be located in the rise section of the escalator. Appellant disagrees. For the reasons discussed above with regard to Gschwendtner, the only place the escalator machine could be located, as defined by claim 1, is in the rise section.

Thus, for the reasons set for above and in the Appeal Brief, the rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Pallinger is improper and must be reversed.

Claim 14 – 35 U.S.C. 103(a) – Gschwendtner

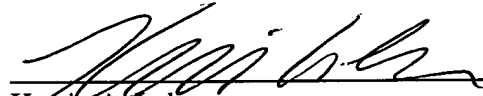
The examiner has presented no new arguments in response to Appellant's arguments set forth in the Appeal Brief.

CONCLUSION

For the reasons set forth above and in the Appeal Brief, the rejection of all claims is improper and should be reversed.

Respectfully submitted,

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CERTIFICATE OF MAIL

I hereby certify that the enclosed Reply Brief is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 1 day of October, 2003.



Laura Combs